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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/683,702 | 10/14/2003 | Fumio Mizuta | 117510 | 9924 |

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| EXAMINER | |
|---|---|
| BOTTORFF, CHRISTOPHER | |
| **ART UNIT** | **PAPER NUMBER** |
| 3618 | |

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/683,702 | MIZUTA, FUMIO | |
| | Examiner | Art Unit | |
| | Christopher Bottorff | 3618 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *14 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 October 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/~~Mail Date 2~~.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.



EA

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Information Disclosure Statement*

The information disclosure statement (IDS) submitted on January 13, 2004 was considered by the examiner.

### *Drawings*

Figure 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

Claim 1 is objected to because of the following informalities: claim 1 recites the limitation "the buttery support part" in line 29, which should recite "the battery support part." Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation "of a vehicle, provided with mounting holes," as recited on lines 5-6 of claim 1, is unclear. Either the floor panel alone, the battery support part alone, or both combined could be "of a vehicle" and could be "provided with mounting holes." The claim does not clearly state which components are so limited.

Also, claims 1 and 4 recite the limitation "the clamping plate" in lines 21 and 27-28 of claim 1 and line 4 of claim 4. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over the disclosed prior art as depicted in Figure 5 in view of Büchmann GB 2 015 951A and Thorn et al. US 6,386,528.

As discussed in the specification in relation to Figure 5, the conventional battery holding structure comprises a floor panel 30, a clamping member 7, hooked rods 1, and nuts 2. The floor panel 30 has a battery support part for supporting a battery thereon and being provided with mounting holes 31. The clamping member 7 is provided with holes 7b in its opposite end parts and is placed on top of the battery. The hook rods 1 each have a substantially J- or L-shaped lower part 1b and a threaded upper part 1a. The upper part 1a is passed from below the battery support part, upward through the mounting holes 31 of the battery support part, such that the lower parts 1b are engaged with the edges of the mounting holes 31 of the battery support part and the threaded upper parts 1a project upward through the holes 7b of the battery clamping member 7. The nuts 2 are screwed on the threaded upper parts 1a of the hook rods 1 to hold the battery on the battery support part. The battery is held between the clamping member 7 and the battery support part by the hook rod 1 and the nut 2.

The battery support part on which the battery is supported is a part of a floor panel 30 of the vehicle. The number of the mounting holes 31 is at least two. The battery is placed in a battery tray 50 placed on the battery support part. The battery tray 50 has lugs 52 provided with holes 52a having a diameter greater than that of the hook

rods 1 at positions corresponding to the mounting holes 31, and the battery tray 50 is fastened together with the battery to the battery support part of the floor panel 30 by the hook rods 1.

The conventional battery holding structure is not disclosed as including tubular spacers or hook rod holding means inside the tubular spacers.

However, Büchmann teaches the desirability of providing a battery holding structure with tubular spacers 5. See Figure 2 and page 1, lines 120-127. The tubular spacers 5 have an outside diameter greater than diameters of rod accommodating holes, which are formed in rib 2 of frame 1, and a length defining distance between a clamping plate and a battery support part. See Figure 2. The tubular spacers 5 are also put on the rods 4, respectively. See Figure 2. From the teachings of Büchmann, providing the conventional battery holding structure with tubular spacers as claimed would have been obvious to one of ordinary skill in the art at the time the invention was made. This would establish a predetermined clamping length and clamping force on the holding structure.

Furthermore, Thorn et al. teach the desirability of providing a structure, which has a rod 34 within a tubular member 22, with holding means, in the form of O-rings 56, placed inside the tubular member. See Figure 8 and column 7, lines 41-54. From the teachings of Thorn et al., providing the conventional battery holding structure, as modified by Büchmann, with O-ring holding means placed inside the tubular spacers would have been obvious to one of ordinary skill in the art at the time the invention was

made. This would introduce friction between the rods and the corresponding tubular spacers that would resist motion between the rods and spacers.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the disclosed prior art as depicted in Figure 5 in view of Büchmann GB 2 015 951A and Thorn et al. US 6,386,528 as applied to claim 3 above, and further in view of Becker US 4,535,863 and Hirabayashi US 4,754,827.

The conventional battery holding structure is not disclosed as including elastic pads. However, Becker teaches the desirability of providing a battery support structure with an elastic pad 80 placed between the clamping plate 24 and an upper surface of the battery 12. See Figures 1-3 and column 6, lines 24-37. Hirabayashi teaches the desirability of providing a battery support structure with an elastic pad 34 placed between a lower surface of the battery A and the battery tray 20. See Figure 6. From the teachings of Becker and Hirabayashi, providing the conventional battery holding structure with an elastic pad between the clamping plate and the upper surface of the battery and another elastic pad between a lower surface of the battery and the battery tray would have been obvious to one of ordinary skill in the art at the time the invention was made. This would assist in holding the battery in position and protecting the battery from shock. Also, the resulting structure would hold the battery between the first elastic pad and the second elastic pad.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wills, Köhler, Hildreth, Carley et al., Davis, Valdez, and Bell disclose battery holding structures.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Bottorff whose telephone number is (571) 272-6692. The examiner can normally be reached on Mon.-Fri. 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Bottorff

6/21/05

ALLEN SHRIVER
PATENT EXAMINER